AMENDMENTS TO THE CLAIMS

1. (Cancelled).

2. (Previously presented) A product provided with a coding pattern which comprises: a grid formation comprising a first plurality of grid points; and a second plurality of marks, each grid point being assigned at least one mark and representing a value by way of the relative location of said at least one mark, wherein first and second combinations of said grid points code a first and a second position, respectively, in at least one direction on the product, the second combination containing a portion of the grid points of the first combination.

3. (Original) The product of claim 2, wherein each of the first and second combinations represents at least one binary code.

4. (Original) The product of claim 3, wherein said at least one binary code is utilized for determination of the first and second positions on the product.

5. (Previously presented) A product provided with a coding pattern which comprises: a grid formation comprising a first plurality of grid points; and a second plurality of marks, each grid point being assigned at least one mark and representing a value by way of the relative location of said at least one mark, wherein each combination of grid points in accordance with a predetermined combination rule represents at least two sets of digits, one of said sets defining a first position coordinate on the product.

6. (Original) The product of claim 5, wherein another one of said sets defines a second position coordinate on the product.

7-14. (Cancelled)

15. (Previously presented) The product of claim 2, wherein the grid formation is at least partly marked physically on the product to indicate the grid points.

16. (Previously presented) The product of claim 2, wherein the coding pattern lacks reference marks for defining the grid formation.

17. (Previously presented) The product of claim 2, wherein the grid formation is virtual.

18. (Previously presented) The product of claim 2, wherein the grid points is identifiable by means of the marks only.

19. (Previously presented) The product of claim 2, wherein the grid formation comprises a set of tiled cell units, each cell unit being defined by at least three grid points, and each grid point being part of at least three cell units.

20. (Previously presented) The product of claim 2, wherein the distance between the grid points is about 250 μm to about 300 μm.

21. (Previously presented) The product of claim 2, wherein the grid formation is a rectangular grid.

22. (Previously presented) The product of claim 2, wherein the marks are optically readable.

23. (Previously presented) The product of claim 2, wherein the marks are readable by infrared light.

24. (Previously presented) The product of claim 2, wherein the grid formation is optically readable.

25. (Previously presented) The product of claim 2, wherein the grid formation is readable by infrared light.

26. (Previously presented) The product of claim 2, wherein the grid formation defines a coded surface area of the product, the collective surface area of the second plurality of marks constituting 0.25% to 20% of the coded surface area.

27. (Previously presented) The product of claim 2, which comprises a sheet of paper.

28. (Cancelled).

29. (Previously presented) A method for determining a set of data values based on a number of marks in a subset of a coding pattern which comprises: a grid formation comprising a first plurality of grid points; and a second plurality of marks, each grid point being assigned at least one mark and representing a data value by way of the relative location of said at least one mark, said method comprising: detecting the grid points in the subset; detecting the marks in the subset; associating each detected mark with one of the detected grid points; and determining the location of each detected mark relative to the thus associated grid point, wherein determining the location comprises: searching for the mark at a predetermined distance from one of the detected grid points.

30. (Previously presented) A method for determining a set of data values based on a number of marks in a subset of a coding pattern which comprises: a grid formation comprising a first plurality of grid points; and a second plurality of marks, each grid point being assigned at least one mark and representing a data value by way of the relative location of said at least one mark, said method comprising: detecting the grid points in the subset; detecting the marks in the subset; associating each detected mark with one of the detected grid points; and determining the location of each detected mark relative to the thus associated grid point, wherein determining the location comprises: calculating the center of gravity of each mark.

31. (Previously presented) The method of claim 29, further comprising:
determining the data value for each grid point based on the location of each associated mark relative to the grid point.

32. (Previously presented) A method for determining a set of data values based on a number of marks in a subset of a coding pattern which comprises: a grid formation comprising a first plurality of grid points; and a second plurality of marks, each grid point being assigned at least one mark and representing a data value by way of the relative location of said at least one mark, said method comprising: detecting the grid points in the subset; detecting the marks in the subset; associating each detected mark with one of the detected grid points; and determining the location of each detected mark relative to the thus associated grid point; wherein the method further comprises: determining the data value for each grid point based on the location of each associated mark relative to the grid point; forming at least two sets of digits, by separating each data value into at least two digits; and calculating a position of said subset in said coding pattern based on at least one of said sets of digits.

33. (Original) The method of claim 32, further comprising: calculating a first position coordinate based on one of said sets of digits; and calculating a second position coordinate based on another one of said sets of digits.

34. (Previously presented) A method for determining a set of data values based on a number of marks in a subset of a coding pattern which comprises: a grid formation comprising a first plurality of grid points; and a second plurality of marks, each grid point being assigned at least one mark and representing a data value by way of the relative location of said at least one mark, said method comprising: detecting the grid points in the subset; detecting the marks in the subset; associating each detected mark with one of the detected grid points; and determining the location of each detected mark relative to the thus associated grid point wherein the method further comprises: determining the data value for each grid point based on the location of each associated mark relative to the grid point; and deriving, based on the data values, the location of the subset among a plurality of partially overlapping subsets in the coding pattern.

35. (Cancelled).

36. (Previously presented) An apparatus for determining a set of data values based on a number of marks in a subset of a coding pattern which comprises: a grid formation comprising a

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first plurality of grid points; and a second plurality of marks, each grid point being assigned at least one mark and representing a data value by way of the relative location of said at least one mark, said apparatus comprising: means for detecting the grid points in the subset; means for detecting the marks in the subset; means for associating each detected mark with one of the detected grid points; and means for determining the location of each detected mark relative to the thus-associated grid point, wherein said means for determining comprises: means for searching for the mark at a predetermined distance from one of the detected grid points.

37. (Previously presented) An apparatus for determining a set of data values based on a number of marks in a subset of a coding pattern which comprises: a grid formation comprising a first plurality of grid points; and a second plurality of marks, each grid point being assigned at least one mark and representing a data value by way of the relative location of said at least one mark, said apparatus comprising: means for detecting the grid points in the subset; means for detecting the marks in the subset; means for associating each detected mark with one of the detected grid points; and means for determining the location of each detected mark relative to the thus-associated grid point, wherein said means for determining comprises: means for calculating the center of gravity of each mark.

38. (Previously presented) The apparatus of claim 36, further comprising: means for determining the data value for each grid point based on the location of each associated mark relative to the grid point.

39. (Previously presented) An apparatus for determining a set of data values based on a number of marks in a subset of a coding pattern which comprises: a grid formation comprising a first plurality of grid points; and a second plurality of marks, each grid point being assigned at least one mark and representing a data value by way of the relative location of said at least one mark, said apparatus comprising: means for detecting the grid points in the subset; means for detecting the marks in the subset; means for associating each detected mark with one of the detected grid points; means for determining the location of each detected mark relative to the thus-associated grid point; means for determining the data value for each grid point based on the

location of each associated mark relative to the grid point; means for forming at least two sets of digits, by separating each data value into at least two digits; and means for calculating a position of said subset in said coding pattern based on at least one of said sets of digits.

40. (Original) The apparatus of claim 39, further comprising: means for calculating a first position coordinate based on one of said sets of digits; and means for calculating a second position coordinate based on another one of said sets of digits.

41. (Previously presented) An apparatus for determining a set of data values based on a number of marks in a subset of a coding pattern which comprises: a grid formation comprising a first plurality of grid points; and a second plurality of marks, each grid point being assigned at least one mark and representing a data value by way of the relative location of said at least one mark, said apparatus comprising: means for detecting the grid points in the subset; means for detecting the marks in the subset; means for associating each detected mark with one of the detected grid points; means for determining the location of each detected mark relative to the thus-associated grid point; means for determining the data value for each grid point based on the location of each associated mark relative to the grid point; and means for deriving, based on the data values, the location of the subset among a plurality of partially overlapping subsets in the coding pattern.

42. (Cancelled).

43. (Previously presented) The method of claim 44, in which said writing further comprises: writing the symbols with the nominal positions coinciding with the grid points.

44. (Previously presented) A method for storing values in a machine readable format on a surface, said method comprising: encoding each of said values in a corresponding symbol so as to generate a set of symbols that vary in accordance with said values, the value of each symbol being represented by the location of at least one mark relative to an associated nominal position; and writing said set of symbols in a predetermined grid formation on the surface, the grid formation comprising a plurality of grid points; wherein said writing further comprises: writing

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the symbols on the surface in first and second combinations that code a first and a second position, respectively, in at least one direction on the surface, the second combination containing a portion of the symbols of the first combination.

45. (Original) The method of claim 44, in which each of the first and second combinations represents at least one binary code.

46. (Original) The method of claim 45, in which the first and second positions on the surface is determinable based on the binary code.

47. (Previously presented) A method for storing values in a machine readable format on a surface, said method comprising: encoding each of said values in a corresponding symbol so as to generate a set of symbols that vary in accordance with said values, the value of each symbol being represented by the location of at least one mark relative to an associated nominal position; and writing said set of symbols in a predetermined grid formation on the surface, the grid formation comprising a plurality of grid points; wherein said writing further comprises: writing the symbols in predetermined combinations on the surface such that each predetermined combination represents at least two sets of digits, one of said sets defining a first position coordinate on the surface.

48. (Original) The method of claim 47, in which each symbol represents one digit in each set of digits.

49. (Original) The method of claim 47, in which another one of said sets defines a second position coordinate on the surface.

50-52. (Cancelled)

53. (Previously presented) The method of claim 44, further comprising writing at least part of the grid formation on the surface to indicate the grid points.

54. (Cancelled)

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55. (Previously presented) The product of claim 5, wherein the grid formation is at least partly marked physically on the product to indicate the grid points.

56. (Cancelled)

57. (Previously presented) The product of claim 5, wherein the grid points are identifiable by means of the marks only.

58. (Cancelled)

59. (Previously presented) The product of claim 5, wherein the marks are optically readable.

60. (Cancelled)

61. (Previously presented) The product of claim 5, wherein the grid formation is optically readable.

62. (Cancelled)

63. (Previously presented) The product of claim 5, wherein the grid formation defines a coded surface area of the product, the collective surface area of the second plurality of marks constituting 0.25% to 20% of the coded surface area.

64. (Cancelled)

65. (Previously presented) The method of claim 30, further comprising: determining the data value for each grid point based on the location of each associated mark relative to the grid point.

66. (Previously presented) The apparatus of claim 37, further comprising: means for determining the data value for each grid point based on the location of each associated mark relative to the grid point.

67. (Previously presented) The method of claim 47, further comprising writing at least part of the grid formation on the surface to indicate the grid points.

68. (Cancelled)